

# Książulo

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **43**
- SRM **4.6**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **26 liter(s)**
- Total mash volume **32.5 liter(s)**

## Steps

- Temp **63 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **26 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **90 min** at **63C**
- Keep mash **5 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Pszeniczny                 | 5 kg (76.9%)  | 85 %  | 4   |
| Grain | Strzegom Monachijski typ I | 1 kg (15.4%)  | 79 %  | 16  |
| Grain | Płatki owsiane             | 0.5 kg (7.7%) | 60 %  | 3   |

## Hops

| Use for    | Name     | Amount | Time     | Alpha acid |
|------------|----------|--------|----------|------------|
| First Wort | Marynka  | 20 g   | 60 min   | 9 %        |
| Boil       | Książęcy | 30 g   | 10 min   | 8.2 %      |
| Whirlpool  | Książęcy | 70 g   | 30 min   | 8.2 %      |
| Dry Hop    | Książęcy | 100 g  | 5 day(s) | 8.2 %      |

## Yeasts

| Name                            | Type | Form  | Amount | Laboratory |
|---------------------------------|------|-------|--------|------------|
| Lallemand - LalBrew Verdant IPA | Ale  | Slant | 300 ml | Lallemand  |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|       |          |      |      |        |
|-------|----------|------|------|--------|
| Spice | kolendra | 25 g | Boil | 10 min |
|-------|----------|------|------|--------|